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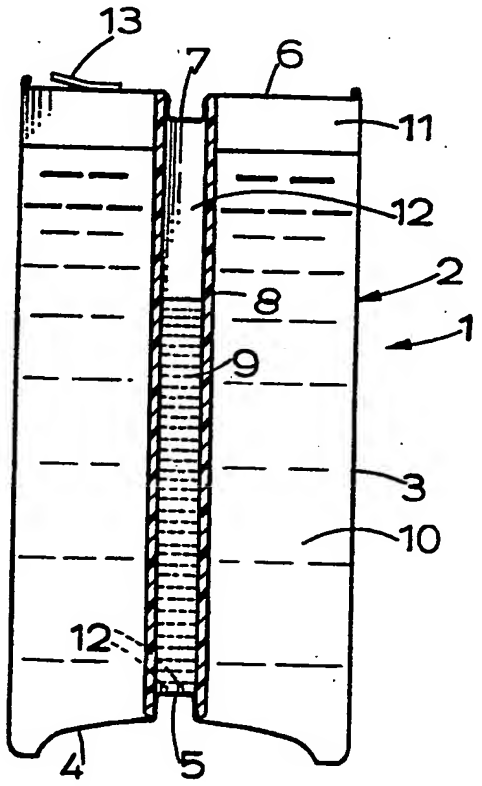
(54) Title: BEVERAGE PACKAGES

(57) Abstract

Various beverage packages for containing the two components of mixed drinks, such as whisky and soda, are described. The main container may be a can (Figures 1 to 4) or a bottle (Figures 5 to 11). The reservoir defining a first drinks chamber (9) is tubular. The reservoir may have a push-fit connection (Figures 1 and 2) with a formation (7) on the top wall (6) of a can and an abutment (14) (Figure 1) with the bottom wall, or a push-fit connection (Figure 2) with the bottom wall (4). When the container has a neck (24) the reservoir is captive to the neck, either as a push-fit in the neck (Figure 5) or by a connection with the cap (Figures 7 to 11) such that when the cap is removed the reservoir can be withdrawn from the neck and a releasable closure (31) can be released to enable the drink in the first chamber (9) to be poured out.



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+ DESIGNATIONS OF "SU"

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BEVERAGE PACKAGES

This invention relates to beverage packages and particularly to mixed drink containers of the kind in which first and second drinks, such as whisky and soda, are contained in first and second drinks chambers in the container, the first and second drinks being available for mixing together when the container is opened. Such a beverage package will hereinafter be referred to as a 'beverage package of the kind set forth'.

According to the invention a beverage package of the kind set forth comprises a container body, and the second drinks chamber is provided by a tubular reservoir housed substantially within the container body.

When the container body is a can, the tubular reservoir preferably comprises a plastics tube.

The tube is preferably retained in position in the can by a retaining means, which is preferably a push-fit between one end of the tube and a formation on or in a can end wall, which may be the top or bottom wall of the can.

The opposite end of the tube may be a push-fit with a projection provided on or in the opposite end wall of the can but, preferably, said opposite end simply abuts with the opposite end wall. An abutment means in the form of at least one projection on the tube may be provided for this purpose.

An orifice means may provide restricted communication between the first and second chambers, the second chamber containing some gas under pressure, the gas in the second chamber expelling the second drink through the orifice means into the main, first chamber of the can when the main chamber is broached, by operation of a ring-pull device, for example.

In another arrangement the tube has a free end which projects sealably through one end wall of the can, and the projecting end is sealed by a removable sealing means, such as a plug or cap.

When the container body is a bottle, the tubular reservoir is preferably held captive to the neck of the bottle and extends downwards from the neck.

The tubular reservoir may be secured by or integral with a cap on the bottle such that, when the cap is removed from the neck, the tubular reservoir is withdrawn or can be withdrawn from the bottle. The reservoir preferably then comprises a manually releasable reservoir sealing means which can be released when the reservoir has been withdrawn from the bottle. The user will remove the cap, release the sealing means and then pour out the liquid from the second chamber, the chamber of the reservoir.

The cap may be a snap-fit on the bottle or it may be threadedly secured to external screw-threads on the bottle neck.

In one embodiment the neck is provided with internal threads which are engaged by external threads on the tubular reservoir.

In another embodiment the outer end of the tubular reservoir is sealed by a removable cap on the bottle, removal of the cap unsealing the main chamber of the bottle as well as the tubular reservoir. The tubular reservoir is retained in the neck but is shaped to define a passage through the neck for the first drink to pour out from the main chamber on removal of the cap.

Thus, removal of the cap unseals both the first and second chambers, and liquid can be simultaneously poured from both chambers on tipping the bottle.

A drinking mug or glass may be arranged on top of the bottle, and may be arranged to have a snap-fit with formations on the cap or

outer end of the tubular reservoir.

The mug or glass may contain a sachet holding a slice of lemon, for example, or ice.

Various beverage packages in accordance with the invention will now be described, by way of example only, with reference to the accompanying drawings in which:

Figure 1 is a vertical cross-section of a mixed-drink can unit in which a tube defining a chamber for spirits is retained by formations on both the can lid and can base.

Figure 2 is a vertical cross-section of a mixed-drink can unit in which the tube containing spirits is retained on a formation on the can lid and has an abutment with the can base,

Figure 3 shows, on a larger scale, a modified lower end to the tube of the can of Figure 2,

Figure 4 shows a vertical cross-section of a mixed-drink can unit in which a tubular reservoir for spirits is a tight fit in a hole in the lid of the can,

Figure 5 is a vertical cross-section of the upper part of a mixed-drink bottle unit in which a tubular reservoir for spirits is located in the bottle neck and is sealed by a cap on the bottle,

Figure 6 is a section on the line 6-6 of Figure 5,

Figure 7 is a vertical cross-section of the upper part of a mixed-drink bottle unit in which the tubular reservoir is integral with the cap,

Figure 8 is a similar view of a further mixed-drink bottle unit,

Figure 9 is a modified cap and reservoir assembly for use with the bottle of Figure 8,

Figure 10 is a yet further modified cap and reservoir construction, and

Figure 11 is a vertical cross-section of the upper part of a mixer-drink bottle unit with integral cap and spirits reservoir, and including an inverted drinking cup.

With reference to Figure 1, the can unit 1 comprises a metal drinks can 2 having a deep-drawn body 3 comprising a cylindrical side wall and integral can base 4, the base 4 being formed with a central upwardly-directed protrusion 5. A can top 6 is similarly provided with a downwardly-directed protrusion 7, the protrusions 5 and 7 being dimensioned to be tight fits in the lower and upper ends respectively of a plastics tube 8 defining a spirits chamber 9 housing a spirit, such as whisky.

The main chamber 10 of the can houses a mixer drink, such as soda containing dissolved carbon dioxide under super-atmospheric pressure. There is gas under super-atmospheric pressure in spaces 11 and 12 above the mixer drink and spirits

An orifice means providing restricted communication between chambers 9 and 10 is constituted by castellations 12 formed in the lower end of tube 8, where it fits on protrusion 5.

When a ring-pull 13 on the top 6 of the can is pulled to define a pouring opening in the can top, the pressure in space 11 is released, and the gas pressure in chamber 12 will force the spirits from chamber 9 through the orifice means into the main chamber for mixing with the mixer drink.

It will be appreciated that the resulting mixed drink can simply be poured from the can by inverting the can.

In assembling such a can unit it is necessary to locate the tube 8 on both the top and bottom protrusions 7, 5. The construction of Figure 2 avoids the need for a protrusion on the can base 5 by providing an engagement between one or more projections 14 on the lower end of the reservoir tubes 8 and the can base 4.

Parts corresponding to those of Figure 1 have been given corresponding reference numbers in Figure 2.

In the can unit of Figure 2, the orifice means is provided by one or more holes, such as holes 15, 16 adjacent to the lower end of tube 8.

Since there is no protrusion on the can base in Figure 2 it is easier to assemble the tube 8 to the can 2.

Figure 3 shows a modification to the tubular reservoir of Figure 2 in which a plug 17 is fitted in the plain end of tube 8, the plug being provided with one or more axial recesses 18 communicating with respective radial recesses 19 to define the orifice means.

In the can unit of Figure 4 the spirits chamber 9 in tubular reservoir 8 is completely sealed from the main, mixer drink chamber 10, the reservoir tube 8 extending sealably, as a tight fit, through a hole in can lid 6. The outer end of tube 8 has a radially outwardly-directed flange 20 abutting with the outer face of the lid 6, and a resilient plug 21 is a push-fit in the outer tube end.

In order to pour out a drink, the ring-pull 13 is pulled to broach the top 6 and the plug 21 is removed by pulling on integral tab 22, and the can is tilted to pour out simultaneously spirits and mixer drink into a glass where the drinks mix due to the pouring activity.

There is, of course, no requirement to pressurise the tubular reservoir 8 in the Figure 4 can unit.

Any of the embodiments of Figures 1 to 4 may be provided with an inverted glass which is fitted on or over the top of the can and secured in place, by a snap-fit or by a removable tape, for example.

Figure 5 shows a bottle 23 in the neck 24 of which is fitted a plastics reservoir 25 comprising a plastics tube 8 of half-round transverse cross-section integral with a locating plate 26 which extends radially of the neck to abut tightly with the internal surface 24 of the neck.

Pouring passages 27 for mixer drink from the main chamber are defined in the neck 24 on either side of plate 26.

The reservoir 25 has an annular flange 28 at its upper end which is dimensioned to engage with the upper end of the neck 24 to prevent the reservoir 25 dropping into the bottle, and an independent cap 29 extends across the upper surface of reservoir 25 to seal both the upper end of tube 8 and the upper ends of passages 27. Cap 29 is a snap-fit on an external bead 30 on the neck 24.

Thus to pour out a mixed drink it is simply necessary to remove cap 29 and to tip the bottle to pour out spirits and mixer drink simultaneously, for mixing in the glass.

Again, in the embodiment of Figure 5 the spirits and mixer drink are kept completely separate until the drinks are poured.

In the Figure 7 construction, the plastics tube 8 is integral with cap 29 which has a snap-fit on the neck 24, and the lower end of tube 8 is sealed by a removable plug 31 integrally connected to tube 8 by a web 32.

On opening of the bottle 23 by removing the cap 29, the tube 8 is withdrawn, and the plug 31 is unseated to allow pouring of the spirits from chamber 9 into a glass. The mixer drink is poured from the bottle into the glass in the usual way.

Figure 8 shows a modification of the construction of Figure 7 in which the plastics cap 29 has a threaded engagement with external screw-threads on the bottle neck by means of an internally-threaded skirt 33 on the cap. The cap 29 has an integral flange 34 which can have a snap-engagement with an inverted glass.

In order to pour spirits from chamber 9 in the Figure 8 embodiment, it is necessary to remove plug 31 after unscrewing the cap 29.

Figure 9 shows a modification to the cap and tube of Figure 8, the plastics cap 29 in Figure 9 being formed with a downwardly-directed protrusion 35 onto which the tube 8 is fitted, tube 8 being permanently closed at its lower end 36. To pour out a drink the cap 29 is unscrewed from the bottle, the cap 29 is pulled away from tube 8 to allow the spirits contained therein to be poured out, and mixer drink is poured from the bottle.

Figure 10 shows an embodiment in which the plastics cap 29 and plastics reservoir tube 8 are independently-formed components, the upper end of the cap 29 being apertured to receive the tube 8 as an interference fit.

The tube 8 is closed at its upper end by an integral wall 29^1 contiguous with flange 34, and radially and inwardly-directed annular flange 37 on the upper end of cap 29 provides the interference fit with tube 8 just beneath flange 34.

Figure 11 shows a further bottle unit in which an inverted plastics drinking vessel 40 is carried by the cap flange 34, which has a locating marginal flange 41.

The vessel 40 may be as shown in full outline in which the side-wall 42 is substantially flush with the main part 43 of the bottle, to provide a neat appearance, or as in broken outline 42^1 to abut with the sloping shoulder 44 of the bottle.

The vessel may be shaped to have a click-fit with the flange 41, or the side-wall 42 may be secured to the bottle by adhesive tape, film or by shrink-wrapping.

A sachet containing a slice of lemon etc, or ice, may be housed in the vessel.

CLAIMS

1. A beverage package (1) comprising a container (2) in which first and second drinks are housed in first and second drinks chambers (10, 9), the first and second drinks being available for mixing together to produce a mixed drink when the container is opened, characterised in that the container (2) comprises a container body (3), and a tubular reservoir (8) is housed substantially within the interior of the container body to provide the second drinks chamber (9).

2. A beverage package as claimed in claim 1 characterised in that the tubular reservoir has a push-fit engagement at one end thereof with a formation (7) provided on or in one end wall (6) of the container body.

3. A beverage package as claimed in claim 2 characterised in that the tubular reservoir has a push-fit engagement at opposite ends thereof with formations (7, 5) provided on or in opposite end walls (6, 4) of the container body.

4. A beverage package as claimed in claim 2 or claim 3 characterised in that the tubular reservoir comprises a tube (8) which is sealed at one end by the formation (7).

5. A beverage package as claimed in claim 1 characterised in that the tubular reservoir extends sealably through a hole in one end wall (6) of the container body (3).

6. A beverage package as claimed in claim 5 in which that end (20) of the tubular reservoir which projects through said hole has an opening sealed by a removable sealing means (21).

7. A beverage package as claimed in claim 1 characterised in that the container body comprises a neck (24) and one end of the tubular reservoir is held captive to the neck.

8. A beverage package as claimed in claim 7 characterised in that said one end of the reservoir is a push-fit in the neck, and a passage (27) is defined in the neck to permit the second drink to be dispensed from the second drinks chamber (10) whilst the reservoir remains in the neck.

9. A beverage package as claimed in claim 8 in which the reservoir and said passage (27) are sealed by a single cap (29).

10. A beverage package as claimed in claim 7 characterised in that the tubular reservoir is carried by a cap (29) which is secured to the neck, the cap and the reservoir being removable from the container body as an assembly.

11. A beverage package as claimed in claim 10 characterised in that the tubular reservoir is provided at the end thereof opposite to that end connected to the cap with a releasable closure (31) closing a dispensing aperture through which the first drink can be poured after removal of the cap and reservoir assembly from the container body.

12. A beverage package as claimed in any one of claims 7 to 11 characterised in that a drinking vessel (40) is arranged to have a snap-fit with a formation (41) on the cap.

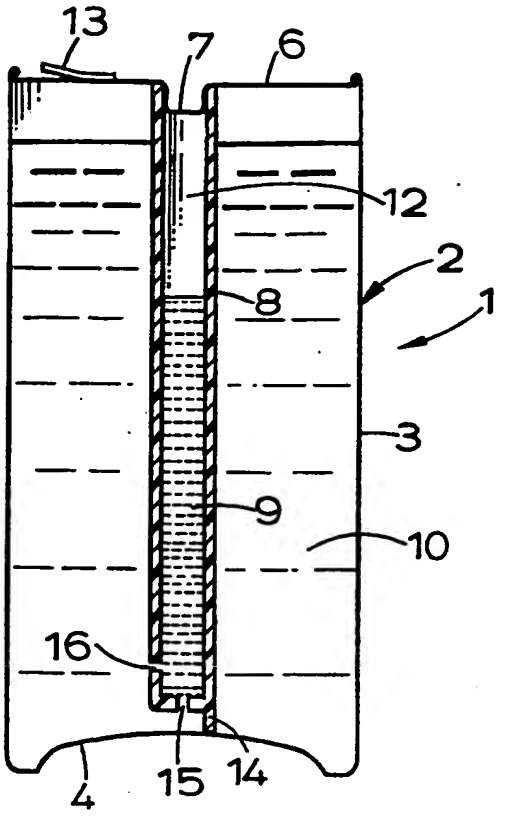

FIG.2.

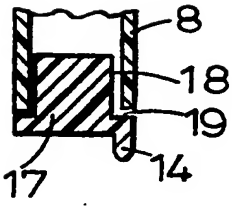

FIG.3.

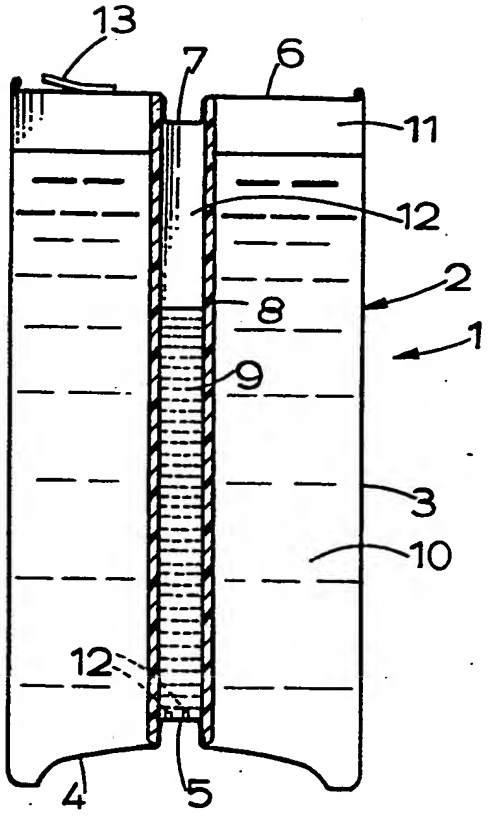

FIG.1.

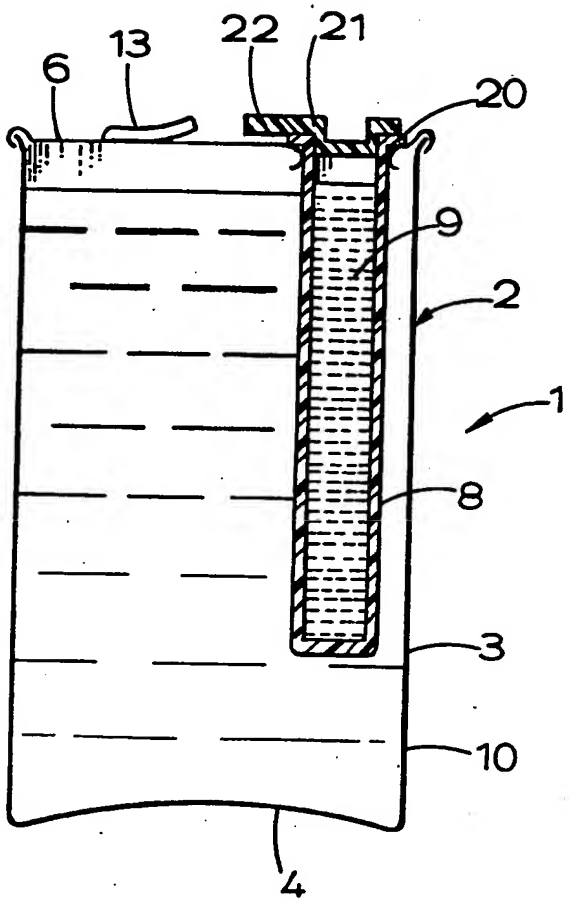

FIG. 4.

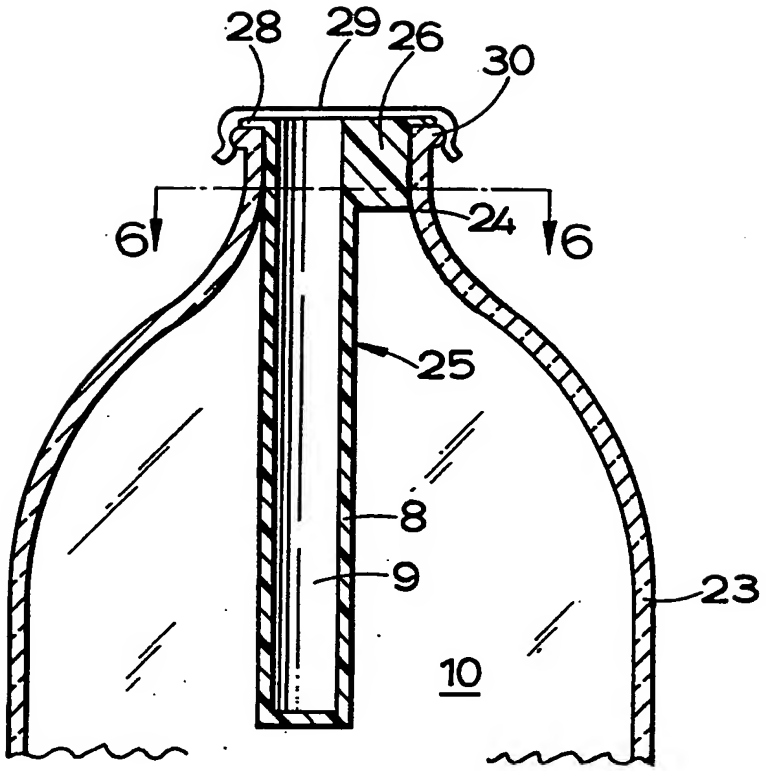

FIG.5.

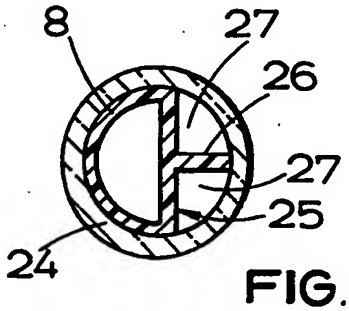

FIG.6.

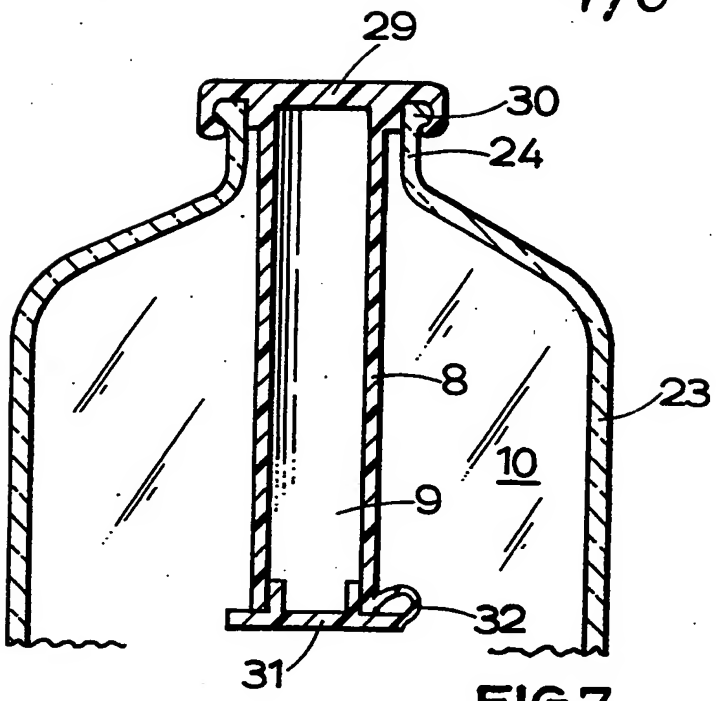

FIG.7.

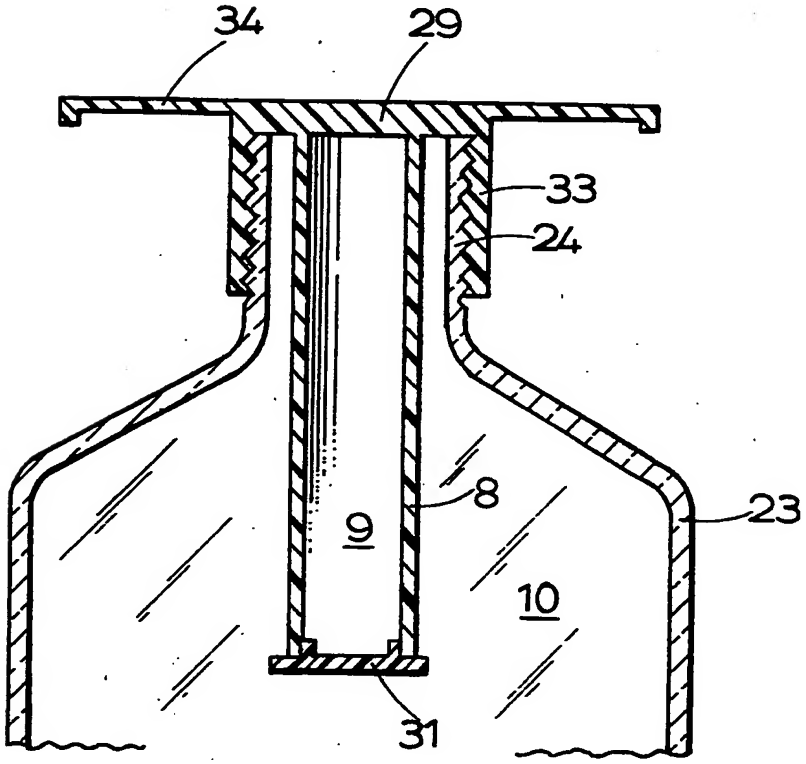

FIG.8.

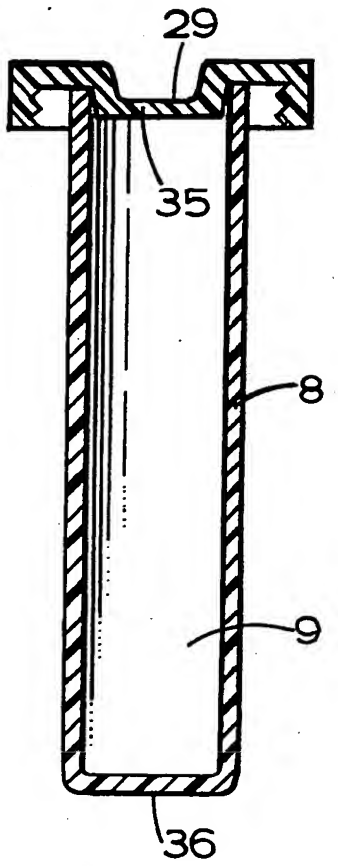

FIG. 9.

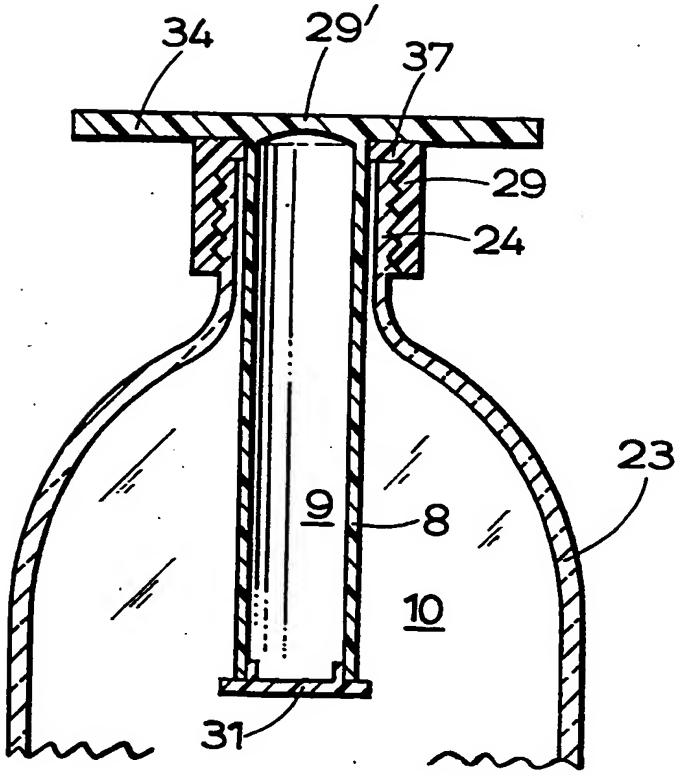

FIG.10.

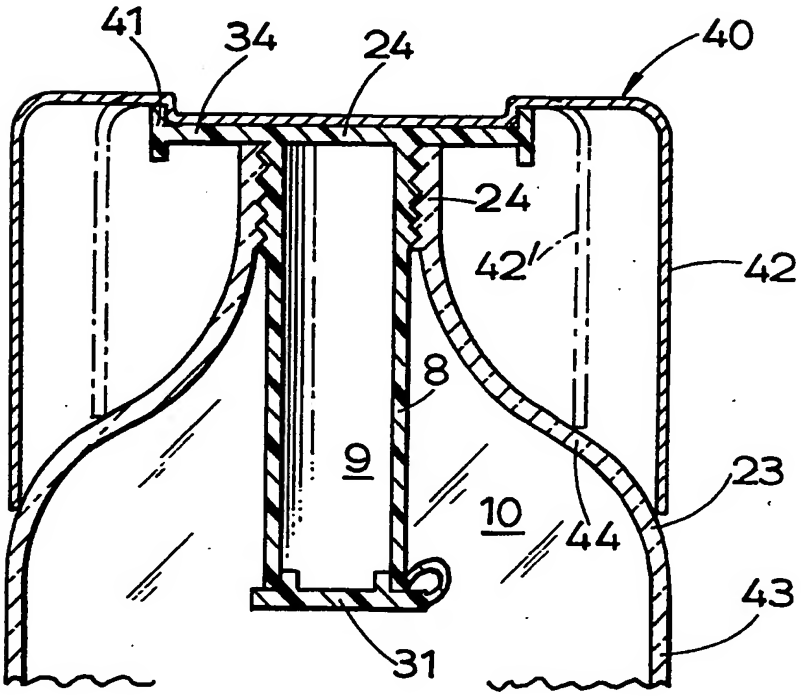

FIG.11.

INTERNATIONAL SEARCH REPORT

International Application No PCT/GB 91/01281

I. CLASSIFICATION OF SUBJECT MATTER (if several classification symbols apply, indicate all)[6]

According to International Patent Classification (IPC) or to both National Classification and IPC

Int.Cl. 5 B65D81/32

II. FIELDS SEARCHED

Minimum Documentation Searched[7]

Classification System	Classification Symbols
Int.Cl. 5	B65D

Documentation Searched other than Minimum Documentation to the Extent that such Documents are Included in the Fields Searched[8]

III. DOCUMENTS CONSIDERED TO BE RELEVANT[9]

Category[10]	Citation of Document,[11] with indication, where appropriate, of the relevant passages[12]	Relevant to Claim No.[13]
X	GB,A,965 932 (SHIRES) 6 August 1964 see page 2, line 39 - line 74; figures 1-5	1-4
X	US,A,4 762 224 (HALL) 9 August 1988 see claim 1; figures 1-3	1-4
X	US,A,3 741 383 (WITTWER) 26 June 1973 see column 2, line 36 - line 58; figure 2	1,5
X	DE,C,167 793 (HAMBURGER) 16 February 1905 see figure 1	1,2
X	EP,A,0 117 948 (REYNOLDS) 12 September 1984 see page 9; claims 1,2 see page 7, line 33 - page 8, column 4; figures 3-8	1,5-9
X A	GB,A,965 508 (HOLLOWAY) 29 July 1963 see figure 1	1 10

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IV. CERTIFICATION

Date of the Actual Completion of the International Search	Date of Mailing of this International Search Report
25 NOVEMBER 1991	28. 11. 91
International Searching Authority	**Signature of Authorized Officer**
EUROPEAN PATENT OFFICE	BESSY M.J.F.M.G.

III. DOCUMENTS CONSIDERED TO BE RELEVANT (CONTINUED FROM THE SECOND SHEET)

Category °	Citation of Document, with indication, where appropriate, of the relevant passages	Relevant to Claim No.
X	US,A,4 667 818 (EVANS) 26 May 1987 see column 4, line 16 - line 24; claim 1; figure 1	1,7,10, 11
X A	FR,A,1 550 763 (PLASTOLAP) 20 December 1968 see figure 1	1 10
A	DE,A,2 759 098 (SCHENLEY) 1 February 1979 see claim 1; figures 4,5	12

ANNEX TO THE INTERNATIONAL SEARCH REPORT ON INTERNATIONAL PATENT APPLICATION NO. GB 9101281 SA 49985

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Patent document cited in search report	Publication date	Patent family member(s)		Publication date
GB-A-965932		None		
US-A-4762224	09-08-88	None		
US-A-3741383	26-06-73	None		
DE-C-167793		None		
EP-A-0117948	12-09-84	DE-A-	3374547	23-12-87
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